

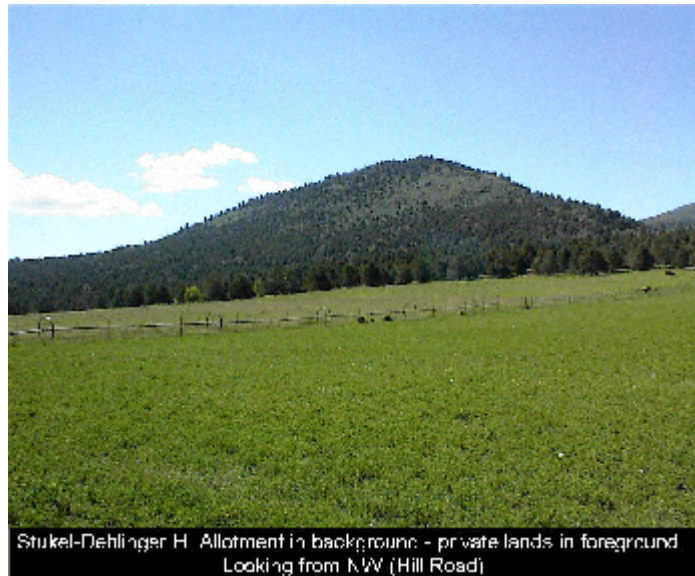
7/10/02 - Final

## **Stukel-Dehlinger H. Allotment (#0816)**

### **Rangeland Health Standards Assessment (RHSA)**

#### **Introduction/Background**

The Stukel-Dehlinger H. allotment (#0816) is located on the north end of Stukel Mountain, which lies about 8+ miles southeast of Klamath Falls, Oregon. This allotment is very small (440 acres) and broken into two parcels of approximately 40 and 400 acres, respectively. The BLM lands have been used in conjunction with a larger parcel of private lands owned by the past grazing lessee (see map). Public and private taken together, these lands make a small grazing allotment with approximately 2 sections of land. The private lands were owned by the Dehlinger family for decades, but were sold during the late 1990's according to county records. The last grazing license to be paid was 1999 and grazing applications sent to the address of record for the past 3 years have been returned "Addressee Unknown". To date the new owner of the private base properties has not applied for transfer of the grazing lease; thus the grazing lease has expired in accordance with 43 CFR 4110.2-1 (d) & (e). This allotment is one of many "Section 15" (Section 15 of the Taylor Grazing Act of 1934) grazing allotments which are scattered in small parcels throughout most of the KFRA.



Most of the public domain in this allotment is very steep lands, which are marginally accessible to totally inaccessible (high parts of the ridge) to cattle. There are no live waters on the allotment; cattle had to have watered on the adjacent private lands. According to maps in the grazing file, the allotment has been fenced into 2 upland pastures - a West pasture that is virtually all private lands and an East pasture, which has almost all of the BLM lands and a smaller amount of private. The lease defined grazing parameters are for 10 cattle from 5/10 to 8/10 - 30 AUMs total for the BLM lands. There is no record of any exchange-of-use "credit" for the private lands.

The grazing use was on a deferred rotation system alternating the East and West pastures so that one pasture is used the first half of the season one year, then the last half of the season the next, with the reverse for the other pasture (late then early). As noted, there is fencing which defines each of the pastures and fencing that largely separates the allotment from the neighboring BLM allotment to the south (Stukel-Dehlinger C. - #0815). However, these fences - and most fences on Stukel - suffer from chronic maintenance problems due to rough terrain, trees falling down, etc. Practically speaking, the BLM license for this allotment appears to be more of a convenience authorization to cover the eventuality of cattle occasionally wandering off the private lands onto public. Stukel-Dehlinger H. is a low priority "C" category allotment as identified in the 1995 *Klamath Falls Resource Area Record of Decision and Resource Management Plan (ROD/RMP)*. The ROD/RMP

recommended a 5/1 to 6/15 season of use. However, the ROD/RMP (page H-1) also stated that *“All changes to...livestock grazing management will be made through the monitoring and evaluation process...”* As a small, low priority allotment, Stukel-Dehlinger H. has had essentially no monitoring information collected on it. However, a field check of the allotment was made in early June 2002 and the observations from that visit are the primary basis for most of the conclusions of his assessment.

This allotment has only one “Identified Resource Conflicts/Concern” noted in the ROD/RMP (Appendix H, page H-22). It will be addressed, implicitly or explicitly, by one or more of the 5 Standards in this Assessment. The one conflict/concern and related “Management Objective” is as follows:

<b>Identified Resources Conflicts/Concerns</b>	<b>Management Objectives</b>
Critical deer winter range occurs in allotment.	Management systems should reflect the importance of deer winter range.

The allotment was ranked as an overall “C” category during the first round of Selective Management classification completed on 9/21/1982. Categorization of grazing allotments has been required by Bureau policy since the early 1980's in order to direct limited manpower and funding to resource problem areas that need it and would benefit most. A brief summary of the categorization efforts follows as it is indicative of relative resource concerns past and present. (“I” or “Improve” allotments have the highest priority resource concerns, “M” or “Maintain” allotments are moderate priority; and “C” or “Custodial” allotments are the lowest resource priority, usually due to small size and/or lack of ability to make significant change. See the ROD/RMP Appendix H, pages H-69-70 for further information on the allotment categorization - “selective management” - process.):

#### 1982 Ranking

- #1 - Range Condition: *Satisfactory* (“M” ranking).
- #2 - Forage Production Potential: *Low production and present production is near potential.* (“C” ranking)
- #3 - Resource Use Conflicts: *Limited conflicts or controversy may exist.* (“C” ranking)
- #4 - Economic Returns: *No opportunity for positive economic returns or no developments proposed.* (“C” ranking)
- #5 - Present Management: *Satisfactory or is only logical practice.* (“C” ranking)

The following note was made on the rating form in 1982: *“Rec/livestock conflict. Private land owner resent public on private land.”* This note was made for virtually all of the Stukel Mountain allotments reflecting the perceived public problems on the mountain. The “C” category ranking was carried forward into the 1995 ROD/RMP.

The sections immediately following are some various informational summaries that will assist in the Standards assessments that follow.

**Grazing Use:** The actual grazing levels on the Stukel-Dehlinger H. allotment are unknown and unknowable at this point, though based on the recent field observations it is unlikely that much grazing use has been made on the majority of the allotment because of the steep topography. The following is a summary of how the allotment has been licensed over the past 30+ years. Since this has always been a low priority allotment, there is no monitoring information and little other

observational data to compare the use against (covered later):

	<u>Cattle #</u>	<u>Season-of-Use</u>	<u>Total Use</u>
<b>2000-2002</b>	Non-use due to expiration of the grazing lease		
<b>1975-1999</b>	10	5/10 - 8/10	30 AUMs
<b>1973-1974</b> <sup>1.</sup>	Not specified	Not specified	30 AUMs
<b>1969-1972</b>	Not specified	Not specified	57 AUMs <sup>2.</sup>
<b>Prior to 1969</b>	Allotment licensed on an acreage basis - not AUMs (explained in Standard 1).		

1. During this period, the actual season-of-use was not specified on the grazing licenses, though the grazing was most likely done during the 5/10 - 8/10 period.

2. Grazing use during the 1969-1972 period was at a higher rate than after that period, i.e. 57 AUMs instead of 30 AUMs. Although there are no records in the file specifically explaining the reduction, it appears that the initial AUM allocation when converting from an acres based to AUMs based license was found to be too high (7.7 acres/AUM) and adjusted to a more realistic allocation (14.7 acres/AUM). This also happened on other allotments on Stukel Mountain.

**Public Use Conflicts:** Like all the public lands on Stukel Mountain, this allotment has also experienced “people” problems in the past. These problems were already explained in some depth in the Stukel-Dehlinger C. *Rangeland Health Standards Assessment* and will not be fully reiterated here. It is unlikely these problems are as high on this allotment as others on Stukel due to the restrictive topography and lack of roads.

**Land Use Planning:** During the early stages of the KFRA RMP process (1990-1991), many grazing allotments in the KFRA were generally evaluated by an interdisciplinary team (IDT) - known at the time as the “mini core team”. However, the Stukel-Dehlinger H. allotment was of low enough priority to not be a subject of concern or apparent discussion during these meetings - or at least nothing was recorded.

#### **Additional Assessment Process Notes:**

Bureau policy and direction articulates a preference that RHSA’s be done at the watershed scale, unless “compelling” reasons dictate a different assessment boundary. Since no watershed analysis is planned for Stukel Mountain, the area allotments are being assessed individually. Since grazing management - and changes to such - must be effected physically at the allotment level and administratively at the permit/lease level, evaluation and assessment at an allotment scale is appropriate. Typically, cattle use stops/begins at an allotment boundary fence. This assessment process is also in accordance with current direction and policy guidance, including the recent Rangeland Health Standards Handbook, H-4180-1.

Some of the information discussed under one Standard may be discussed under one (or more) of the other Standards. This is partially due to the same monitoring or observational information being used to address several Standards. The bulk of the available information is discussed in the first Standard because the allotment is totally upland in nature and the first Standard on upland functionality makes a convenient location for most of the analysis.

The condition or degree of function of an area in relation to the Standards and its trend toward or

away from any Standard is determined through the use of reliable and scientifically sound indicators - know as “Indicators of Rangeland Health”. The H-4180-1 Handbook defines an “indicator” as: *“Components of a system whose characteristics (presence or absence, quantity, distribution) are used as an index of an attribute (e.g. rangeland health attribute) that are too difficult, inconvenient, or expensive to measure”*. Though the Handbook encourages the use of “...dissimilar indicators...” for each Standard, there is rarely enough information available to have unique indicators for each Standard. Examples of indicators can include ecological condition ratings, plant cover and productivity, different erosional attributes, and many other potential ones. In this assessment area there has never been any monitoring information collected. All that exists about resource conditions is the observational information from a recent field visit to the area by the author of this Assessment and some occasional notes in the files. This information is thought to be sufficient for assessing this low priority allotment. The indicators/observations used are explained in the assessment that follows. (Note: The brief description of the Standard in bold, is quoted from the approved “*Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington - August 12, 1997*”).

The “Guidelines for Livestock Grazing Management” comprise a set of concepts to consider when evaluating the current or proposed grazing management of an area against the 5 Standards. To quote the 4180 Handbook, a “guideline” is: *“A practice, method or technique used to ensure that standards can be met or that significant progress can be made toward meeting the standard. Guidelines are tools such as grazing systems, vegetative treatments, or improvement projects that help managers achieve standards. Guidelines may be adapted or modified when monitoring or other information indicates the guideline is not effective, or a better means of achieving the applicable standard becomes appropriate.”* The actual Oregon/Washington Guidelines for Livestock Grazing Management are included with this assessment, for informational purposes, as Appendix 1.

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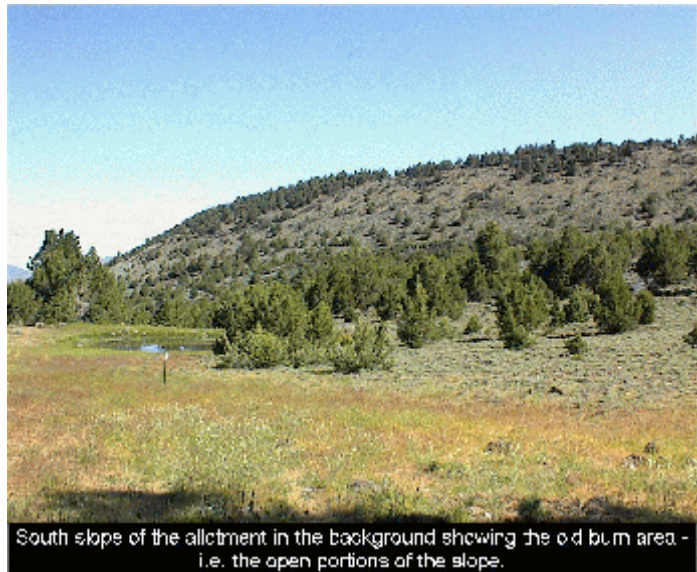
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**STANDARD 1 - WATERSHED FUNCTION - UPLANDS** (Upland soils exhibit infiltration and permeability rates, moisture storage and stability that are appropriate to soil, climate and land form.)

The primary information/monitoring to be used in evaluating this Standard are the observations from a June 2002 field inspection; some limited miscellaneous information and file notes found in the grazing and allotment files; and the application of professional judgement to the information by BLM personnel who have monitored and are familiar with the area. The indicators that this information helps address are: plant cover, litter, composition, production, age class and community structure; level of erosion and overland flow.

On June 5<sup>th</sup>, 2002, the author of this Assessment visited the allotment and made a complete walk around the large (400 acre) BLM parcel making observations as to the conditions, vegetation, fencing, etc.. This field visit was documented in a “Notes to the Stukel-Dehlinger H...files” memo dated June 5, 2002. The information from that memo is quoted below, almost in its entirety, since it forms the primary information base for this Assessment (pictures were added for this Assessment):

I (Bill Lindsey) began my walk from Dehlinger pond which lies to the south of allotment 0816 in the neighboring 0815 allotment (Stukel-Dehlinger C. - already Assessed earlier this year. The pond was full and no sign of cattle use this year, though the licensed period is now.). I walked north up the south slope of the ridge that makes up most of allotment 0816. Almost the entire south/southwest side of this ridge (which slopes over both allotments) was burned at some point in the past 40-50 years. Judging from the scattered juniper trees, this wild(?) fire had to be at least that many years ago - and possibly more. The area had a good stand of mountain big sagebrush and various bunch grasses (bluebunch wheatgrass, squirreltail, needlegrasses) but also because of the fire, had abundant rubber rabbitbrush and lots of cheatgrass (more abundant than the other grass species). In fact on the driest faces of the ridge, cheatgrass was the dominant grass. Even though little to no grazing has taken place on this ridge, the cheatgrass gained a strong foothold on the south slopes and has not been pushed out as yet by the native shrubs & grasses. (I think this is another example of why burning in the drier ecological sites in this area is ill advised.)

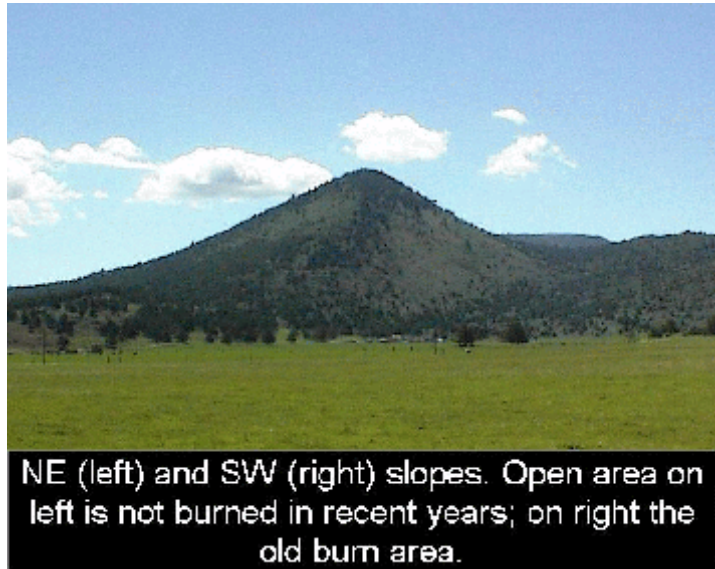


There were numerous old burned tree boles on this slope that appeared to be ponderosa pine. There is currently little to no pine on the south slope today - it has not apparently been able to come back in because of aspect? juniper/shrub competition? other reasons?? There is some scattered juniper on the slope, but primarily the vegetation is as listed above with abundant amounts of chokecherry and currant also. Erosion seems limited and overall conditions are pretty good considering the residual effects of the burning.... (Note: Even though the allotment map shows the south boundary as fenced, I found no fencing or sign of fencing in the area that I walked up the allotment boundary. Either the fencing is discontinuous and I found the "hole" in it, or never existed?? More on fencing later....)

I kept proceeding around the south/SW slope of the ridge at approximately the 5200' level (had my GPS with me). At UTM 4664530 I moved into an area that was rocky and apparently escaped the burn. This area was a fantastic stand of old, old juniper with an even more impressive understory of bluebunch wheatgrass. I'm not sure what ecological site to call this, but it was a great example of a rocky, fire resistant ridge area in PNC condition. The area also had a few scattered pine, mountain mahogany, and moderate amounts of cheatgrass - a carryover from the neighboring burn area I guess. However, the production of bluebunch was many times the cheatgrass. As I moved through this old growth area and around the west end of the mountain towards the north slope the cheatgrass essentially disappeared.

On the ridge break between the south and north slopes, I could get a fairly good view with binoculars of the detached 40 acre parcel at the base of the slope to the northwest. The area had no cattle in evidence and appeared to be fenced separately, though that was hard to tell. The map in the file shows a pasture fence cutting through the parcel and that is probably about right. The parcel was "infested" with young juniper like most of the benchland areas in south Klamath County. There was no shrub understory but apparently a decent grass/forb component. Couldn't tell species, of course, from 600 or so yards away even with binoculars. I could also see where someone had cut juniper - the evidence being old gray piles of juniper branches pock marking the area. (This trespass cutting happened about 5 years ago, was reported to the BLM, and the subsequent trespass actions, etc...is documented in the grazing file.)

On the north to NE face of the ridge the vegetation community changes again to either a North Slope 14-20" ecological site or a Shrubby Loam 16-20" (in the more open areas - though both have bitterbrush as a co-dominant shrub of which little/none was seen on my walk) and/or Mahogany Rockland or Pine-Mahogany-Fescue sites (the tree areas). Actually no existing ecological site description describes any of the area well. The north slope was an equal + or - mix of "open" areas and "tree" areas. The "open" areas were beautiful, high seral, stands of scattered mountain big sagebrush, bluebunch wheatgrass, needlegrasses,



Idaho fescue, and a myriad of forbs (Senecio, paintbrush, lupine, asters, phlox, etc.). There were numerous, though scattered, younger juniper trees here - no old growth - which could be a worry for the future. There was also some scattered mountain mahogany and other desired species. The "tree" areas were a mixture of mahogany, pine, some juniper, and the other already mentioned shrubs, grasses, and forbs. I could see nothing on this side of the mountain that implied cattle or any livestock had ever been here....probably never has been grazed by any livestock with the exception of maybe sheep years ago since the slope is very steep and water is in the bottom of the valley. (Note: I could see cattle on the neighboring 0822 allotment - on the private Jeld-Wen portions to the east of where I was at.)

The top of the ridge and down the south side was a strip of mahogany dominated vegetation. Nice deer country. As I walked around the east side of the ridge (elevation 5190', UTM 613822, 4664309), the fire scared area picks up again...see previous description. At UTM 613824, 4664260 I picked up the division fence at last - between 0816 and 0815. The fence was old and mostly down and on the edge of a very steep slope that drops away to a ephemeral drainage with a stock pond in the bottom. The fence continued to the SW and ended at UTM 613677, 4664144 where it "L" down the hill a ways. From this point, I walked back to the truck.

Overall impression of allotment is that it is in exceptional shape - burned and unburned - and that livestock grazing has had no effect on it in the past, present, and probably won't in the future. It would be interesting to find out when the area burned to get an idea of how long the cheatgrass has been persisting with no grazing. It may be that on these dry, baked south slopes that have been burned, cheatgrass will always be present in quantity even with no grazing. It seems to imply that grazing - at least light to moderate grazing - has no effect on the persistence of cheatgrass since many similar areas that are grazed properly have similar amounts of cheatgrass. Since there is no current lease on the allotment, the only potential for grazing animals is from neighboring allotment slop-over - and that's not likely

On many of the other, smaller, grazing allotments assessed to date, an Upland PFC rating was completed by a small team of office resource specialists. Preparation of an Upland PFC is not deemed necessary on this allotment because of the excellent conditions and almost total lack of past, present, and probably future, grazing pressure or other environmental/resource pressures.

**Forage Allocation History:** Based on a review of the older grazing files, the Section 15 grazing lands in the old Lost River Resource Area (which is now part of the current KFRA) were converted

from acres based to AUM based licensing during the 1968-1970 period. (The Section 15 lands include all the KFRA administered lands outside of the Gerber Block Grazing District.) Most of these allotments were converted at the ratio of 10 acres equaling one AUM, e.g. a 100 acre lease of BLM lands was now being leased at 10 AUMs. Some allotments, however, were given a more generous grazing use allocation. This includes many of the Stukel Mountain allotments - including Stukel-Dehlinger H. - which were converted at the ratio of approximately 7 acres equaling one AUM. These conversions were not apparently based on any type of range survey or monitoring information, but were instead converted based on the acreage and presumably some knowledge of the forage capabilities of the area in general. Given the elevation and climatic regime of our area (13"-18" precip.) and the vegetation communities that this precipitation can support, a 7 to 10 acres/AUM maximum allocation is generally reasonable though in many areas less is warranted due to terrain, suppressed conditions, or other factors.

Specifically for the Stukel-Dehlinger H. allotment, between the 1968 and 1969 grazing seasons, the allotment was converted from an acreage based grazing lease (400 acres at \$0.0475 per acre) to an AUMs based lease for 57 AUMs (i.e. 7.7 acres/AUM). However, when reissuing the grazing lease in early 1973 the AUMs were cut back to 30, i.e. 14.7 acres/AUM. This appears to be a realistic figure, or even conservative considering that the private lands have no exchange-of-use authorized. The 30 AUM preference was reaffirmed in 1983 as part of the Lakeview Districts land use planning process (Lakeview District Grazing EIS).

**Determination:**        ***This Standard is currently being met.***

Recent field observations in hand with the limited past information indicate that current ecological conditions on the BLM administered lands are fully appropriate for meeting this Standard, even in the old burned area. If grazing use of the allotment were to resume, it likely would have no detrimental effect on the allotment because most lands would still remain ungrazed because of the steep topography, the current conditions are good, and the AUM allocation is conservative.

## **STANDARD 2 - WATERSHED FUNCTION - RIPARIAN/WETLAND AREAS**

**(Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and land form.)**

**This allotment has no riparian/wetland areas within its boundaries, thus there are no monitoring studies or other riparian information and no indicators are needed.**

**Determination:**        ***This Standard is currently being met (or is not applicable).***

**STANDARD 3 - ECOLOGICAL PROCESSES** (Healthy, productive and diverse plant and animal populations and communities appropriate to soil, climate and land form are supported by ecological processes of nutrient cycling, energy flow and the hydrologic cycle.)

**The primary information and indicators to be used in evaluating this Standard are those listed under Standard 1.**

Since the allotment is all upland in nature, the analysis and information listed under Standard 1 is the basis for the determination under this Standard. As noted, the ecological status of the majority of the vegetation communities are late seral to PNC. One possible exception is the old burn area which still retains significant amounts of cheatgrass (i.e. probably ~10% of the production as observed in June 2002). However, the soil is stable and very rocky, the vegetation is apparently still in an upward trend, and livestock are not a factor as there was no sign of past livestock grazing. The other possible condition suppressed area is a portion of the detached 40 acre parcel at the NW base of the ridge. As noted, this area is dominated by western juniper with virtually all of the shrubs absent and a sparse herbaceous understory.

This leads into one major ecological issue that needs some discussion - western juniper (*Juniperus occidentalis*) and its place in the ecosystem of Stukel Mountain. Most portions of the Klamath Basin, above the valley floor and below about 5500', have been experiencing varying degrees of the juniper "problem". This includes juniper encroachment into vegetation communities - particularly big sagebrush - that previously had little to no juniper and significant density increases in areas where juniper was and should be present, though in lesser quantity. Though a native plant, in the absence of fire (a function of increased suppression and grazing related fine fuels reduction) and with the stimulus of livestock grazing reducing shrub and grass competition, juniper can increase to the point that the vegetation community is virtually a monoculture of these trees. This results in diminished habitat capabilities for most native wildlife species, dramatically reduced forage production for all grazing animals, and frequently an environment conducive to the invasion of undesirable exotic annual grasses and forbs.

On the Stukel-Dehlinger H. allotment juniper increases have been relatively minor to moderate but is of some future concern on the mountain big sagebrush/bunchgrass northeast slope area where numerous young trees (<10') were scattered through the otherwise good condition vegetation community. Though the southwest slope of the ridge still has a cheatgrass problem even though it burned decades ago, the north slope may be a candidate for prescribed burning at some point. With an excellent - and still cheatgrass free - vegetation community, this area could respond well to burning. However, the steep slopes could make it questionable to control properly. As a recent alternative to prescribed burning, in recent years extensive hand felling and piling/burning of the juniper has been done on many portions of the KFRA, including Stukel Mountain. This can significantly open up closed juniper areas, potentially allowing for the restoration of more typical - and functional - native plant communities. More juniper reduction is planned over the next few years on Stukel Mountain. Hand felling of juniper could be done, though the steep slopes could make this endeavor difficult and/or expensive. Hand or mechanical treatment would be very useful on the detached 40 acre parcel noted above. (See "Management Recommendations" section.)

**Determination:      *This Standard is currently being met.***

The juniper encroachment issue looms as a potential ecological problem; see "Management Recommendations" section.

**STANDARD 4 - WATER QUALITY (Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.)**

There are no listed quality impaired waters within this allotment. The runoff from the allotment is disconnected from the nearest water body of concern - the Lost River - by variably developed private lands. The Lost River is a State of Oregon 303(d) listed water for an assortment of recognized problems. Grazing on this Assessment allotment would have no effect on the water quality of the Lost River - good or bad - though conceptually the excellent vegetation conditions on BLM administered lands are likely a positive factor in inhibiting excessive run-off and sedimentation. The lands on and around the Lost River to the north of the allotment are all private and have an array of other impacting and disturbance factors that variably contribute to water quality problems: dense roads, gravel pits, alfalfa and potato farming, houses, intensive livestock pasturing, etc.. Outside of the potential for cattle grazing on the public lands in the allotment, none of these impacting activities are within BLM purview. Since the vegetation communities have been estimated to be functional, cattle grazing on the BLM portions of the allotment (if resumed) would not be considered as significant issue to the overall water quality concerns.

**Determination:**        *This Standard is currently being met (or is not applicable).*

**STANDARD 5 - NATIVE, T&E, and LOCALLY IMPORTANT SPECIES (Habitats support healthy, productive and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate and land form.)**

**The primary information, monitoring, and indicators to be used in evaluating this Standard are those listed under Standard 1.**

**Animals:** In the Klamath Basin, Stukel Mountain is situated like an “island” of largely undeveloped wildlands within a “sea” of developed private agricultural lands. The BLM lands on the mountain (almost ½ of the area) - though not all in pristine condition - could be considered as reservoirs of comparatively stable, good condition lands in an area with the potential for drastic change due to its dominant private status. This makes the BLM lands very important and significant for an assortment of wild life species. In particular, is the importance of the area as year-round deer habitat. However, since the ecological condition of the vegetation communities are good to excellent, the area is thought to be “performing” well as quality wildlife habitat for a proper diversity of species. The juniper encroachment issue, as discussed under Standard 3, is also a wildlife habitat issue but will not be reiterated here.

**Plants:** No special status plants are known to be present on this allotment. This allotment was surveyed in 1997 under a botanical contract for special status vascular plants and noxious weeds. No sites were documented for this allotment.

**Determination:**        *This Standard is currently being met.*

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### **Management Recommendations:**

A fundamental problem with the management of most Section 15 allotments like Stukel-Dehlinger H. is the fragmented nature of the public lands limits the opportunity for - and effectiveness of - BLM resource management actions. Most of these allotments are poorly (or not) fenced from the adjacent private lands and all actions must be done cooperatively with the land owner(s) to have much chance of sustaining positive change. However, even with up-front cooperation, making and sustaining positive resource change over the long-term is difficult in these fragmented areas because of frequent lessee turnover, private (and sometimes public) land sales, higher resource priorities on the more contiguous public land areas, poor fencing, and poor access and resulting limited use supervision. The origination of these Section 15 public land parcels is also part of the problem, in that these lands were the poorest (steepest, rockiest, driest, lowest production, etc.) lands in the area and are still in public ownership because they were never desired during past aggressive federal land disposal eras.

Fortunately, the basic nature of the Stukel-Dehlinger H. allotment - steep with late seral vegetation - implies a continuation of functional upland conditions and ecological resiliency. As the allotment is currently not being leased for livestock grazing, there is no reason to expect conditions to change. If grazing use is activated in the future, it is unlikely conditions would change even then since conditions didn't apparently suffer during the decades that it was used for grazing. When or if grazing resumes, periodic use supervision (every 2-3 years) would be recommended to ensure that no grazing resource problems arise in the future. Occasional checks should also be made even if the allotment continues to be unlicensed, to ensure that errant livestock use does not occur. No other monitoring is thought necessary at this time.

As is recommended for much of Stukel Mountain, juniper treatment (density reduction) should be undertaken within vegetation types where young (<100 year old) western juniper is encroaching or increasing beyond the ecological site description defined normal range of variation. Of particular importance on this allotment would be the removal of most trees from the mountain big sagebrush and mountain mahogany communities, which are common on the north slope portion of the allotment and on the adjacent 40 acre parcel. However, due to the steep slopes treatment on the north slope may be logistically difficult to accomplish though still very worthwhile to keep these communities in later seral stages for wildlife habitat purposes. The 40 acre parcel would be easy to treat, but could have private land ingress issues.

The final management recommendation pertains only to the detached 40 acre parcel in the extreme NW portion of the allotment. This portion is essentially unmanageable as it is virtually surrounded by private lands, though it is at least partially fenced away from some of the private lands. It is also physically isolated from the remainder of the allotment by the steep slope. Currently, the parcel is in Zone 1 (Retention) in the 1995 KFRA RMP/EIS. It is recommended that this parcel be either sold (Zone 3) or traded (Zone 2); actions which may entail a Land Use Plan amendment.

Klamath Falls Resource Area has a very proactive weed program which includes inventories and site

treatments that consist of biological, chemical, and manual treatments. The treatment efforts are to contain weed sites, reduce population size, and eradicate weed sites where possible. These efforts will continue to occur on this and all KFRA grazing allotments.

\* \* \*

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**Determination**

- ( ) Existing grazing management practices and/or levels of grazing use (i.e. potential grazing use as per RMP) on the Stukel-Dehlinger H. (#0816) allotment promotes achievement or significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management (Appendix 1).
- ( ) Existing grazing management practices and/or levels of grazing use (i.e. potential grazing use as per RMP) on the Stukel-Dehlinger H. (#0816) allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

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Manager, Klamath Falls Resource Area

Date

**Guidelines for Livestock Grazing Management**

Guidelines for livestock grazing management offer guidance in achieving plan goals, meeting standards for rangeland health and fulfilling the fundamentals of rangeland health. Guidelines are applied in accordance with the capabilities of the resource in consultation, cooperation, and coordination with permittees/lessees and the interested public. Guidelines enable managers to adjust grazing management on public lands to meet current and anticipated climatic and biological conditions.

**General Guidelines**

- A. Involve diverse interests in rangeland assessment, planning and monitoring.
- B. Assessment and monitoring are essential to the management of rangelands, especially in areas where resource problems exist or issues arise. Monitoring should proceed using a qualitative method of assessment to identify critical, site-specific problems or issues using interdisciplinary teams of specialists, managers, and knowledgeable land users.

Once identified, critical, site-specific problems or issues should be targeted for more intensive, quantitative monitoring or investigation. Priority for monitoring and treatment should be given to those areas that are ecologically at-risk where benefits can be maximized given existing budgets and other resources.

**Livestock Grazing Management**

- A. The season, timing, frequency, duration and intensity of livestock grazing use should be based on the physical and biological characteristics of the site and the management unit in order to:
  - a. provide adequate cover (live plants, plant litter and residue) to promote infiltration, conserve soil moisture and to maintain soil stability in upland areas;
  - b. provide adequate cover and plant community structure to promote streambank stability, debris and sediment capture, and floodwater energy dissipation in riparian areas.
  - c. promote soil surface conditions that support infiltration;
  - d. avoid sub-surface soil compaction that retards the movement of water in the soil profile;
  - e. help prevent the increase and spread of noxious weeds;
  - f. maintain or restore plant communities to promote photosynthesis throughout the potential growing season;
  - g. maintain or restore plant communities to promote photosynthesis throughout the potential growing season;

- h. promote soil and site conditions that provide the opportunity for the establishment of desirable plants;
  - i. protect or restore water quality; and
  - j. provide for the life cycle requirements, and maintain or restore the habitat elements of native (including T&E, special status, and locally important species) and desired plants and animals.
2. Grazing management plans should be tailored to site-specific conditions and plan objectives. Livestock grazing should be coordinated with the timing of precipitation, plant growth and plant form. Soil moisture, plant growth stage and the timing of peak stream flows are key factors in determining when to graze. Response to different grazing strategies varies with differing ecological sites.
  3. Grazing management systems should consider nutritional and herd health requirements of the livestock.
  4. Integrate grazing management systems into the year-round management strategy and resources of the permittee(s) or lessee(s). Consider the use of collaborative approaches (e.g., Coordinated Resource Management, Working Groups) in this integration.
  5. Consider competition for forage and browse among livestock, big game animals, and wild horses in designing and implementing a grazing plan.
  6. Provide periodic rest from grazing for rangeland vegetation during critical growth periods to promote plant vigor, reproduction and productivity.
  7. Range improvement practices should be prioritized to promote rehabilitation and resolve grazing concerns on transitory grazing land.
  8. Consider the potential for conflict between grazing use on public land and adjoining land uses in the design and implementation of a grazing management plan.

### **Facilitating the Management of Livestock Grazing**

1. The use of practices to facilitate the implementation of grazing systems should consider the kind and class of animals managed, indigenous wildlife, wild horses, the terrain and the availability of water. Practices such as fencing, herding, water development, and the placement of salt and supplements (where authorized) are used where appropriate to:
  - a. promote livestock distribution;
  - b. encourage a uniform level of proper grazing use throughout the grazing unit;
  - c. avoid unwanted or damaging concentrations of livestock on streambanks, in riparian areas and other sensitive areas such as highly erodible soils, unique wildlife habitats and plant communities; and
  - d. protect water quality.
2. Roads and trails used to facilitate livestock grazing are constructed and maintained in a manner that minimizes the effects on landscape hydrology; concentration of overland flow, erosion and sediment transport are prevented; and subsurface flows are retained.

## Accelerating Rangeland Recovery

1. Upland treatments that alter the vegetative composition of a site, like prescribed burning, juniper management and seedings or plantings must be based on the potential of the site and should:
  - a. retain or promote infiltration, permeability, and soil moisture storage;
  - b. contribute to nutrient cycling and energy flow;
  - c. protect water quality;
  - d. help prevent the increase and spread of noxious weeds;
  - e. contribute to the diversity of plant communities, and plant community composition and structure;
  - f. support the conservation of T&E, other special status species and species of local importance; and
  - g. be followed up with grazing management and other treatments that extend the life of the treatment and address the cause of the original treatment need.
2. Seedings and plantings of non-native vegetation should only be used in those cases where native species are not available in sufficient quantities; where native species are incapable of maintaining or achieving the standards; or where non-native species are essential to the functional integrity of the site.
3. Structural and vegetative treatments and animal introductions in riparian and wetland areas must be compatible with the capability of the site, including the system's hydrologic regime, and contribute to the maintenance or restoration of properly functioning condition.